

ABSTRACT

Fish hatchery is a fish cultivation that has a specific room consists of several ponds for cultivation starting from seeding, hatching, nursery, and growth to the adult stage. From these four periods, the period of nursery is a period that has an important role for the growth of fish then it's necessary to monitor the environmental conditions around the fish more awake and fish needs.

In this final project, built prototype monitoring system for fish hatchery based on IoT that can monitor fish hatchery condition automatically. The use of IoT concept is to make it easier for users to monitor fish hatchery condition remotely by using web based application. The built system has a sensor node consists of microcontroller, a sensor that performs water temperature data acquisition, room temperature, and pH. Data acquisition results are then sent to server for further data processing.

From the test conducted for 25 days, obtained that the data acquisition process run in accordance with the specified time range. However, it was found error of reading data on sensor as much 0.14% for water temperature, 2.30% for room temperature, 7.77% for pH, and found the average delay of delivery time from sensor node to server by 27.68 seconds.

Keywords : *Acquisition, Fish Hatchery, IoT, Monitoring System, Sensor Node*